JC05 Rec'd PCT/PTO 28 MAR 2002

FORM PTO-1390 (Modified) (REV 10-95) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

# TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER: P-6485

U S APPLICATION NO (IF KNOWN, SEE 37 CFR): 10/089529

| INTERNATIONAL APPLICATION NO. | INTERNATIONAL FILING DATE | PRIORITY DATE CLAIMED |
|---|---|---|
| PCT/IB00/01402 | 02 October 2000 | 30 September 1999 |

TITLE OF INVENTION
**AN INTERACTIVE COMPUTER-BASED GAMING SYSTEM**

APPLICANT(S) FOR DO/EO/US
**Joe ZOCK**

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
   a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
   b. ☐ has been transmitted by the International Bureau.
   c. [ ] is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English (35 U S C. 371(c)(2)).
7. ☒ A copy of the International Search Report (PCT/ISA/210).
8. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C 371 (c)(3))
   a ☐ are transmitted herewith (required only if not transmitted by the International Bureau)
   b ☐ have been transmitted by the International Bureau.
   c. [ ] have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☐ have not been made and will not be made.
9. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
10. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

**Items 13 to 18 below concern document(s) or information included:**

13. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☐ An assignment document for recording A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included
15. ☒ A **FIRST** preliminary amendment.
    A **SECOND** or **SUBSEQUENT** preliminary amendment
16. ☐ A substitute specification
17. ☐ A change of power of attorney and/or address letter
18. ☒ Certificate of Mailing by Express Mail
19. ☒ Other items or information:

**Return Receipt Postcard**

| U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR) | INTERNATIONAL APPLICATION NO | ATTORNEY'S DOCKET NUMBER |
|---|---|---|
| 10/089529 | PCT/IB00/01402 | P-6485 |

20. The following fees are submitted

**BASIC NATIONAL FEE ( 37 CFR 1.492 (a) (1) - (5)) :**

| | | CALCULATIONS PTO USE ONLY |
|---|---|---|
| ☒ | Search Report has been prepared by the EPO or JPO . . . . . | $890.00 |
| ☐ | International preliminary examination fee paid to USPTO (37 CFR 1 482) . . . . . | $720.00 |
| ☐ | No international preliminary examination fee paid to USPTO (37 CFR 1 482) but international search fee paid to USPTO (37 CFR 1 445(a)(2)) . . . . . | $790.00 |
| ☐ | Neither international preliminary examination fee (37 CFR 1 482) nor international search fee (37 CFR 1 445(a)(2) paid to USPTO . . . | $1,070.00 |
| ☐ | International preliminary examination fee paid to USPTO (37 CFR 1 482) and all claims satisfied provisions of PCT Article 33(2)-(4) . . . . . | $98.00 |

| | | |
|---|---|---|
| **ENTER APPROPRIATE BASIC FEE AMOUNT =** | **$890.00** | |
| Surcharge of **$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (e)). | **$0.00** | |

| CLAIMS | NUMBER FILED | NUMBER EXTRA | RATE | | |
|---|---|---|---|---|---|
| Total claims | 18 - 20 = | 0 | x $18.00 | **$0.00** | |
| Independent claims | 1 - 3 = | 0 | x $84.00 | **$0.00** | |
| Multiple Dependent Claims **(check if applicable)** | | | ☒ | **$280.00** | |
| **TOTAL OF ABOVE CALCULATIONS** | | | = | **$1,170.00** | |
| Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also be filed (Note 37 CFR 1 9, 1 27, 1 28) **(check if applicable).** | | | ☒ | **$585.00** | |
| **SUBTOTAL** | | | = | **$585.00** | |
| Processing fee of **$130.00** for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (f)) | | | + | **$0.00** | |
| **TOTAL NATIONAL FEE** | | | = | **$585.00** | |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3 31) **(check if applicable).** | | | ☐ | **$0.00** | |
| **TOTAL FEES ENCLOSED** | | | = | **$585.00** | |
| Applicant asserts small entity status under 37 CFR 1.27. | | | | **Amount to be: refunded** | $ |
| | | | | **charged** | $ |

☒ A check in the amount of **$585.00** to cover the above fees is enclosed

☐ Please charge my Deposit Account No. in the amount of to cover the above fees.
A duplicate copy of this sheet is enclosed

☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No **18-2284** A duplicate copy of this sheet is enclosed

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO

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28465
PATENT TRADEMARK OFFICE

Michael L. Kenaga
SIGNATURE

**Michael L. Kenaga**
NAME

**34,639**
REGISTRATION NUMBER

March 28, 2002
DATE

10/089529
JC13 Rec'd PCT/PTO 28 MAR 2002

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | |
|---|---|---|
| In re Application of: Joe Zock | ) | **PATENT** |
| U.S. National Phase of PCT/IB00/01406 filed on October 2, 2000 | ) | Atty. Docket No. P-6485 |
| For: AN INTERACTIVE COMPUTER-BASED GAMING SYSTEM | ) | Art Unit: Unassigned |
| | ) | Examiner: Unassigned |

**PRELIMINARY AMENDMENT**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

Prior to examination of this application, please amend the above-identified application as follows:

**IN THE CLAIMS:**

Please cancel claims 1-18 without prejudice and substitute therefore the following new claims:

**Claims**

19. (new) An interactive computer-based gaming system for playing a game, the system comprising:

funds acceptance means for accepting funds from a player;

funds delivery means responsive to the outcome of the game;

user interface means for allowing the user to interact with the game;

game control means for controlling the operation of the game, the game control means being responsive to the funds acceptance means, and including generator means for generating a plurality of winning object strings from a set of objects; and

game display means controlled by the game control means and the user interface means, the game display means including means for generating a plurality of legs, with each leg being arranged to receive at least one object drawn from the set of objects,

wherein the game control means is arranged to compute a payout in the event of a predetermined correlation existing between the at least one drawn object and the winning object string in respect of a particular leg and to allow the player selectively to receive at least a portion of the payout and/or to progress to the next leg.

20. (new) An interactive computer-based gaming system according to claim 19 wherein the user interface means includes odds varying means for enabling the player to vary the odds in a particular leg during play.

21. (new) An interactive computer-based gaming system according to claim 20 wherein the odds varying means includes drawn object varying means for dynamically varying the number of drawn objects in a leg during play.

22. (new) An interactive computer-based gaming system according to either one of claims 19 or 20 wherein the odds varying means includes object string varying means for dynamically varying the number of generated objects in the winning string which are to be correlated with the at least one drawn object during play.

23. (new) An interactive computer-based gaming system according to claim 19 which includes dynamic withdrawal means for enabling a player-determined percentage of the payout to be withdrawn during the course of the game.

24. (new) An interactive computer-based gaming system according to claim 19 wherein the drawn objects are player-designated or drawn.

25. (new) An interactive computer-based gaming system according to claim 19 wherein the winning object strings are randomly or pseudo-randomly generated number strings, with the objects being numbered from 0 - 9.

26. (new) An interactive computer-based gaming system according to claim 19 wherein the game display means is a printed ticket which is designed or selected by the player and printed prior to the payout being computed.

27. (new) A method of playing a game, the method comprising the steps of:

accepting funds from a player;

generating a plurality of winning object strings from a set of objects;

displaying a plurality of legs, each leg being arranged to receive at least one object drawn from the set of objects;

computing a payout in the event of a predetermined correlation existing between the at least one drawn object and the winning object string in respect of a particular leg; and

enabling the player selectively to receive at least a portion of the payout and/or to progress to the next leg.

28. (new) A method of playing a game according to claim 27 further including the step of varying the odds in a particular leg during play.

29. (new) A method of playing a game according to claim 28 wherein the odds can be varied by dynamically varying the number of drawn objects in a particular leg during play.

30. (new) A method of playing a game according to either one of claims 27 or 28 in which the odds can be varied by dynamically varying the number of generated objects in the winning object string which are to be correlated with the at least one drawn object during play.

31. (new) A method of playing a game according to claim 27 which includes the step of withdrawing a player-determined percentage of the payout during the course of the game.

32. (new) A method of playing a game according to claim 27 wherein the step of generating a plurality of winning object strings from a set of objects includes the step of

generating random or pseudo-random number strings, with the objects being numbered from 0 - 9.

33. (new) A method of playing a game according to claim 27 which includes the step of printing a ticket comprising the plurality of legs prior to the payout being computed.

34. (new) A gaming ticket comprising:

a wager indicator for indicating the quantum of a wager laid by a player;

a customized betting zone comprising a plurality of legs, with each leg comprising a plurality of sub-zones in which objects pre-selected by the player from a set of objects are printed; and

a dynamic withdrawal indicator for allowing the player selectively to receive at least a portion of a payout and/or to progress to the next leg, the payout being computed in the event of a predetermined correlation existing between the at least one drawn object and a winning object string subsequently generated.

35. (new) A gaming ticket according to claim 34 which includes a results card for receiving the winning object string from the set of objects.

36. (new) A gaming ticket according to either one of claims 34 or 35 which includes an odds varying indicator for indicating how the odds in a particular leg have been varied.

## REMARKS

Entry of the above amendment is respectfully requested.

The new claims 19-36 are substantially similar to original claims 1-18 as set out in the PCT International Application, with the exception that the new claims have been amended to omit multiple dependent claims and to otherwise conform to U.S. practice.

Respectfully submitted,

PIPER MARBURY RUDNICK & WOLFE

Date: March 28, 2002

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18/pits

# AN INTERACTIVE COMPUTER-BASED GAMING SYSTEM

## BACKGROUND OF THE INVENTION

THIS invention relates to an interactive computer-based gaming system.

Gaming systems and lotteries in which players actively participate in a game and win money according to the outcome of the game are hugely popular. Apart from lotteries, most games of this type are played in secured environments such as casinos, which are not accessible to everyone.

One significant disadvantage of lotteries is that the player has minimal input, and has very little or no control both over manipulation of the odds and over manipulation of the outcome of the game.

CONFIRMATION COPY

## SUMMARY OF THE INVENTION

According to a first aspect of the invention there is provided an interactive computer-based gaming system for playing a game, the system comprising:

funds acceptance means for accepting funds from a player;

funds delivery means responsive to the outcome of the game;

user interface means for allowing the user to interact with the game;

game control means for controlling the operation of the game, the game control means being responsive to the funds acceptance means, and including generator means for generating a plurality of winning object strings from a set of objects; and

game display means controlled by the game control means and the user interface means, the game display means including means for generating a plurality of legs, with each leg being arranged to receive at least one object drawn from the set of objects,

wherein the game control means is arranged to compute a payout in the event of a predetermined correlation existing between the at least one drawn object and the winning object string in respect of a particular leg and to allow the player selectively to receive at least a portion of the payout and/or to progress to the next leg.

Preferably, the user interface means includes odds varying means for enabling the player to vary the odds in a particular leg during play. The odds varying means includes drawn object varying means for dynamically varying the number of drawn objects in a leg during play. In addition, the odds varying means further includes object string varying means for dynamically varying the number of generated objects in the winning string which are to be correlated with the at least one drawn object during play.

Advantageously, the gaming system includes dynamic withdrawal means for enabling a player-determined percentage of the payout to be withdrawn during the course of the game.

Preferably, the drawn objects are player-designated or drawn.

Typically, the winning object strings are randomly or pseudo-randomly generated number strings, with the objects being numbered from 0 – 9.

In one form of the invention, the game display means is a printed ticket which is designed or selected by the player and printed prior to the payout being computed.

According to a second aspect of the invention there is provided a method of playing a game, the method comprising the steps of:

accepting funds from a player;

generating a plurality of winning object strings from a set of objects;

displaying a plurality of legs, each leg being arranged to receive at least one object drawn from the set of objects;

computing a payout in the event of a predetermined correlation existing between the at least one drawn object and the winning object string in respect of a particular leg; and

enabling the player selectively to receive at least a portion of the payout and/or to progress to the next leg.

Preferably, the method further includes the step of varying the odds in a particular leg during play.

Advantageously, the odds can be varied by dynamically varying the number of drawn objects in a particular leg during play. In addition, the odds can be varied by dynamically varying the number of generated objects in the winning object string which are to be correlated with the at least one drawn object during play.

Preferably, the method includes the step of enabling the withdrawal of a player-determined percentage of the payout during the course of the game.

Typically, the step of generating a plurality of winning object strings from a set of objects includes the step of generating random or pseudo-random number strings, with the objects being numbered from 0 – 9.

In one form of the invention, the method includes the step of printing a ticket comprising the plurality of legs prior to the payout being computed.

According to a third aspect of the invention there is provided a gaming ticket comprising:

a wager indicator for indicating the quantum of a wager laid by a player;

a customized betting zone comprising a plurality of legs, with each leg comprising a plurality of sub-zones in which objects pre-selected by the player from a set of objects are printed; and

a dynamic withdrawal indicator for allowing the player selectively to receive at least a portion of a payout and/or to progress to the next leg, the payout being computed in the event of a predetermined correlation existing between the at least one drawn object and a winning object string subsequently generated.

The gaming ticket typically includes a results card for receiving the winning object string from the set of objects.

Preferably, the gaming ticket includes an odds varying indicator for indicating how the odds in a particular leg have been varied.

## BRIEF DESCRIPTION OF THE DRAWINGS

**Figure 1** shows a highly schematic block diagram of a computer-based gaming system of the invention;

**Figures 2A – 2J** show typical printouts of an interactive display screen forming part of the gaming system and illustrating an exemplary game in progress;

**Figure 3** shows a flowchart illustrating the main routine which the gaming system of the invention follows; and

**Figures 4A to 4G** show flowcharts illustrating the various sub-routines followed by the gaming system of the invention.

## DESCRIPTION OF EMBODIMENTS

Referring first to Figure 1, a gaming system 10 of the invention has at its heart a software-based game controller 12 for controlling the operation of the game. Funds acceptance means 14 such as a debit or credit card acceptance device, a cash acceptance device or a modem-link funds transfer device is connected to the game controller 12. Similarly, the game controller 12 is connected via an output to funds delivery means 16. The funds delivery means 16 may also form part of a modem-linked funds transfer system. An internal account database 18 is incorporated into the software of the game controller 12, and keeps track of the debit or credit status of the player's account. A user interface 20 is connected to the game controller 12, and may take the form of a keypad, a mouse, a joystick or any other conventional user interface device which interfaces with a screen 22 providing an interactive screen display of the type illustrated in Figures 2A to 2J and generated by the software at the heart of the game controller 12.

The operation of the game will now be described with reference to the flowcharts of Figures 3 and 4A to 4G with reference to the typical display screen printouts of Figures 2A – 2J. In order to start a game, the details of a particular player are entered, as is shown in Figure 3, and the identified player is then required to enter some form of legal tender into the system via the funds acceptance means 14. This may be achieved in a number of ways, including physical notes and coins, a debit or credit card reader, a smart card reader or any other funds transfer routine from a player's account using a suitably secured funds transfer method. The value of the tender accepted by the funds acceptance means is stored in the internal account database 18

which keeps a running tally of the balance in the player's account. It is then created in the manner indicated in the Figure 4B sub-routine. In the exemplary example, the player has submitted a tender of R500 000, as shown in the Balance indicator 23.

The display screen of Figure 2A shows a typical betting card 24 with the value of the player's tender shown at 26. The card 24 takes the form of a 10x10 matrix divided into 10 columns or legs 24.1 to 24.10. At the start of the game, the player has to lay his or her wager 27, as shown in Figure 2A, for that particular card, with the wager 27 being variable for each card 24. In the illustrated example, the player has wagered an amount of R1.00. For each wager 27 laid by the player, the card's background, or some other designated area of the card 24, becomes a colour which is specific to the amount laid in order to remind the player of the amount which has been laid. Thereafter, a series of 10 numbers are drawn by a random or pseudo-random number generator, as shown in Figure 2B. In the illustrated example, the number series 6 1 7 9 7 8 2 6 0 2 has been generated, with each successive number appearing at the head of each column 24.1 to 24.10. Figure 2B also clearly shows that as a result of the R1.00 wager, the Balance indicator 23 reflects an amount of R499 999 and the current value of the card 24 is R1.00, as shown at 26.

There are a number of different ways in which the betting card can be customized to suit the needs of the player. As a first option, subtract and add "buttons" 28 and 30 can be used to increase or decrease the number of required numbers drawn per column. By way of example, by clicking on the add button 30 three times, the additional numbers 8, 9 and 3 appear in the first column 24.1 as shown in Figure 2C. Since the player has bet R1.00 for the initial series of 10 numbers it will cost the player an additional R1.00 to place each of the additional numbers 8, 9 and 3. The player then continues to prepare the betting card by adding a number (3) to the second column 24.2.

Since R1.00 stakes are being used, the amount bet will effectively double to R8.00. The addition of the drawn numbers 0 and 5 in the third column 24.3 will increase the stake to R24.00, and the wager will be increased to R96.00 by addition of three more numbers in the fourth column 24.4. It can clearly be seen that the original R1 wager has been increased to R96 by virtue of the player increasing the chances of winning by 4x2x3x4=96. The R96.00 wagered amount corresponds to the current value of the card, and is indicated at 26, and a corresponding decrease of R96.00 in the player's balance is also indicated at 23.

The player can still make further adjustments to the betting card 24, by using up and down arrows 32 and 34 respectively to further vary the odds, as will be explained with reference to Figures 2D and 2E. Figures 4C and 4D illustrate the sub-routines involved in doing so. These up and down arrows 32 and 34 are used to adjust, in a lower row selector square 36, the number of winning numbers to be considered, once the game is in progress, as will be explained in more detail further below. By way of example, in the first three row select squares 36.1, 36.2 and 36.3, the first three rows of winning numbers have been selected as indicated by the brown, dark green and light blue bands 38. In the fourth row select square 38.4, the first four rows have been selected, with the addition of the purple band 38.1. This increases the winning odds, but as a result the goal or winning total is proportionately reduced. In the present case, for example, the winning total is reduced by a factor of 3x3x3x4=108, so that the original winning total of R100 000 000, as shown in Figure 2D, is reduced to R925 925.93 as shown in Figure 2E.

Once the betting card has been set up, the start button 40 is clicked, and this has the effect of generating a first string of winning numbers 42 in a results card 44, as shown in Figure 2E. The results card 44 comprises a similar 10x10 matrix, with the various columns 44.1 to 44.10 corresponding to the columns 24.1 to 24.10. For ease of reference, each successive row in each of the

columns is colour coded in the order brown, dark green, light blue, dark blue, purple, light green, red, violet, yellow and blue.

To determine whether a player has won anything involves comparing the rows or the so-called winning numbers in each of the columns 44.1 to 44.10 to the betting legs of columns 24.1 to 24.10. The number of rows of each results column 44.1 to 44.10 which are to be taken into consideration depends on the number of winning numbers the player has requested, using the up and down arrows 32 and 34. In the results columns 44.1 to 44.10, the numbers being considered are highlighted so as to distinguish them from the numbers in the results column which are not being considered.

In the particular Figure 2E example therefore, the first three winning numbers, namely 2, 0 and 6, are compared with the corresponding numbers appearing in the first column of the betting card, namely 6, 8, 9 and, with there being a match for number 6. The matched number is then highlighted on the betting card 24 so as to indicate that it is a winning number The effect of obtaining one matching number is to proportionately reduce the number of remaining active lines from 96 as shown in Figure 2D to 24, as shown in Figure 2E. This figure is obtained by multiplying the 2 rows in column 2 by the remaining 3 rows in column 3 and again by the 4 rows in column 4. In addition, the current value of the card 24 has been reduced from R96.00 to R80.00, as indicated at 26.

At this stage, the player has an opportunity of either drawing further results columns 44.2 to 44.10 with a view to obtaining further matches between the betting card legs and the results columns, or withdrawing a portion or all the winnings to date. In the present example, we will assume that the player wishes to withdraw certain of his winnings. This is done by clicking on the Take button 46, after which a withdrawal window 48, as shown in Figure 2F, appears on the screen allowing the player to vary the percentage of winnings

from 0% to 100% that is to be withdrawn. By way of example, if the player in the present example wishes to withdraw 25% of his winnings to date, 25% of the winnings i.e. R20.00 is deducted from the current card value and added to the player's winnings box 50 and to the player's Balance indicator 23. Figure 4F indicates the payout sub-routine.

If, however, the player opts not to withdraw any of the winnings, then he or she would cycle through each column in the results card 44 until the card 24 is full or until there are no more matches. As the player progresses, provided there is sufficient balance in the account for obtaining the result for a particular column, the player may adjust the number of winning numbers in each results column which are to be considered by manipulating the up and down arrows 32 and 34 respectively, as described above. In the present example, as shown in Figure 2H, the second column 44.2 in the results card 44 yielded two matched numbers in that both the 1 and the 3 of the betting card leg 24.2 appear in the first three rows of the results column 44.2. The effect of this is to increase the winnings to R246.67 and to keep the number of remaining active lines at 24, in view of the fact that both numbers of the column 24.2 were winning numbers.

The player also has the option of activating the odds or evens "button" 52, which allows the player to wager an amount that the next number in the results card 44 will be either odd or even, as shown in the Odds/Even Wager window 54 of Figure 2I. In the present example, the next number was an odd number, as shown in Figure 2J, which resulted in the wagered amount (R50.00) being added to the winnings and to the Odds/Evens box 56. The odds and evens sub-routine is illustrated in more detail in Figure 4E.

The gaming system of the invention can be played in numerous different forms. For example, it may be a casino-based game, it can be played as a

lottery, or it can be internet-based, in which case it can be downloaded from a central secured server onto a player's terminal.

In one form of the invention, the card is purchased from selected outlets in the form of a printed ticket. Upon purchasing the ticket, the player may still customize the betting card, as described above. The main difference is that the player will need to decide beforehand at what stage, i.e. on which leg, the winnings are to be taken. It is envisaged that in this form of the invention the string of winning numbers would then be generated on a weekly basis, with all winning tickets then being taken to the various outlets to enable the player to collect the winnings.

In a further form of the invention, the player may prefer to purchase pre-designed tickets of varying denominations. Thus, for example, should the player wish to wager a total amount of R100, the card will automatically draw 5 numbers in the first leg, five numbers in the second leg and then 4 numbers in the third leg.

Claims

1. An interactive computer-based gaming system for playing a game, the system comprising:

funds acceptance means for accepting funds from a player;

funds delivery means responsive to the outcome of the game;

user interface means for allowing the user to interact with the game;

game control means for controlling the operation of the game, the game control means being responsive to the funds acceptance means, and including generator means for generating a plurality of winning object strings from a set of objects; and

game display means controlled by the game control means and the user interface means, the game display means including means for generating a plurality of legs, with each leg being arranged to receive at least one object drawn from the set of objects,

wherein the game control means is arranged to compute a payout in the event of a predetermined correlation existing between the at least one drawn object and the winning object string in respect of a particular leg and to allow the player selectively to receive at least a portion of the payout and/or to progress to the next leg.

2. An interactive computer-based gaming system according to claim 1 wherein the user interface means includes odds varying means for enabling the player to vary the odds in a particular leg during play.

3. An interactive computer-based gaming system according to claim 2 wherein the odds varying means includes drawn object varying means for dynamically varying the number of drawn objects in a leg during play.

4. An interactive computer-based gaming system according to either one of claims 2 or 3 wherein the odds varying means includes object string varying means for dynamically varying the number of generated objects in the winning string which are to be correlated with the at least one drawn object during play.

5. An interactive computer-based gaming system according to any of the preceding claims which includes dynamic withdrawal means for enabling a player-determined percentage of the payout to be withdrawn during the course of the game.

6. An interactive computer-based gaming system according to any one of the preceding claims wherein the drawn objects are player-designated or drawn.

7. An interactive computer-based gaming system according to any one of the preceding claims wherein the winning object strings are randomly or pseudo-randomly generated number strings, with the objects being numbered from 0 – 9.

8. An interactive computer-based gaming system according to any one of the preceding claims wherein the game display means is a printed

ticket which is designed or selected by the player and printed prior to the payout being computed.

9. A method of playing a game, the method comprising the steps of:

accepting funds from a player;

generating a plurality of winning object strings from a set of objects;

displaying a plurality of legs, each leg being arranged to receive at least one object drawn from the set of objects;

computing a payout in the event of a predetermined correlation existing between the at least one drawn object and the winning object string in respect of a particular leg; and

enabling the player selectively to receive at least a portion of the payout and/or to progress to the next leg.

10. A method of playing a game according to claim 9 further including the step of varying the odds in a particular leg during play.

11. A method of playing a game according to claim 10 wherein the odds can be varied by dynamically varying the number of drawn objects in a particular leg during play.

12. A method of playing a game according to either one of claims 10 or 11 in which the odds can be varied by dynamically varying the number of generated objects in the winning object string which are to be correlated with the at least one drawn object during play.

13. A method of playing a game according to any one of claims 9 to 12 which includes the step of withdrawing a player-determined percentage of the payout during the course of the game.

14. A method of playing a game according to any one of claims 9 to 13 wherein the step of generating a plurality of winning object strings from a set of objects includes the step of generating random or pseudo-random number strings, with the objects being numbered from 0 – 9.

15. A method of playing a game according to any of claims 9 to 14 which includes the step of printing a ticket comprising the plurality of legs prior to the payout being computed.

16. A gaming ticket comprising:

a wager indicator for indicating the quantum of a wager laid by a player;

a customized betting zone comprising a plurality of legs, with each leg comprising a plurality of sub-zones in which objects pre-selected by the player from a set of objects are printed; and

a dynamic withdrawal indicator for allowing the player selectively to receive at least a portion of a payout and/or to progress to the next leg, the payout being computed in the event of a predetermined correlation existing between the at least one drawn object and a winning object string subsequently generated.

17. A gaming ticket according to claim 16 which includes a results card for receiving the winning object string from the set of objects.

18. A gaming ticket according to either one of claims 17 or 18 which includes an odds varying indicator for indicating how the odds in a particular leg have been varied.

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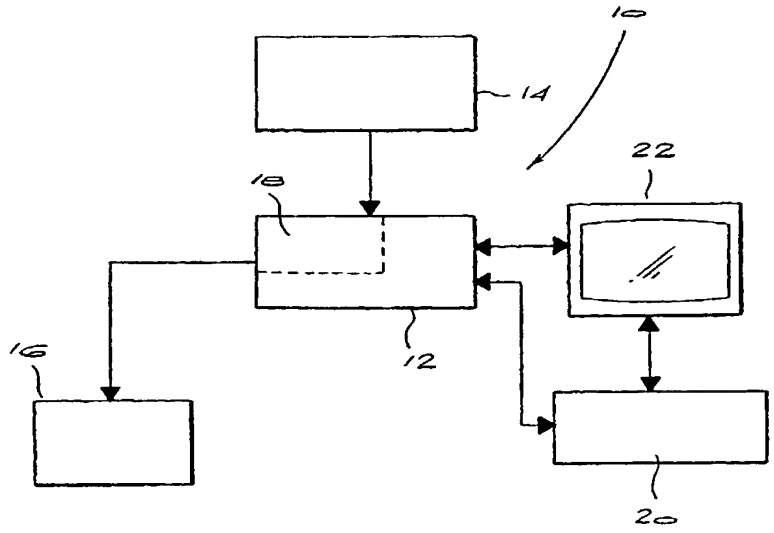
*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette*

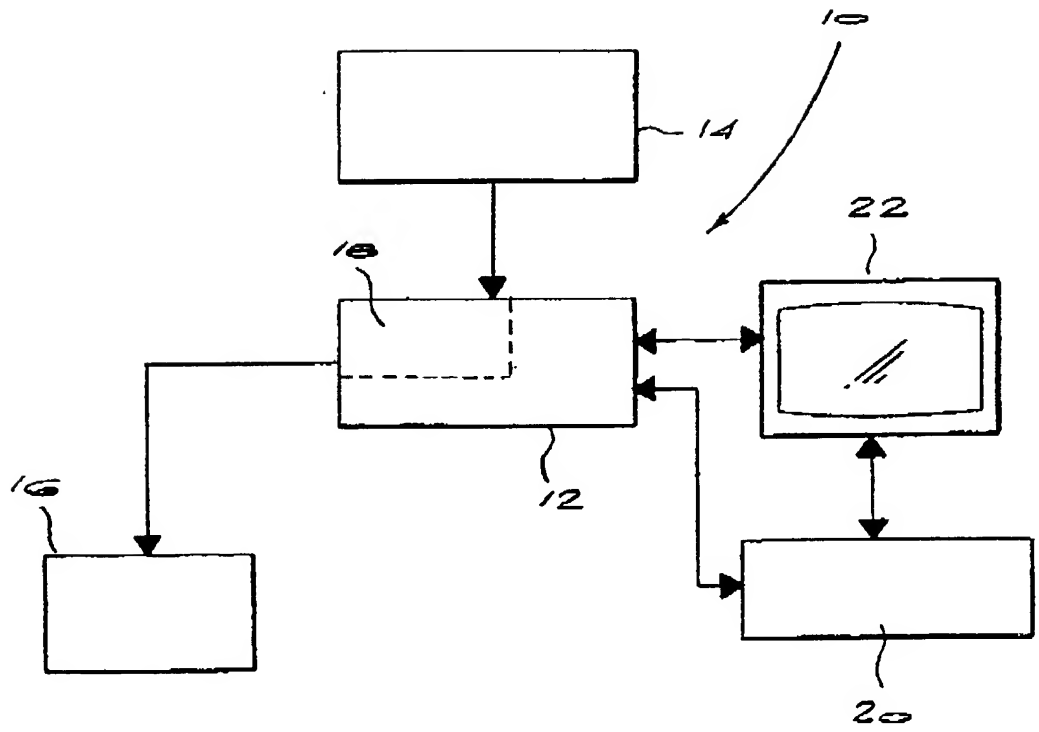
(54) Title: AN INTERACTIVE COMPUTER-BASED GAMING SYSTEM




(57) Abstract: An interactive computer-based gaming system (10) includes a display screen (22) comprising a betting card which takes the form of a matrix divided into ten legs. The game commences once a series of ten numbers are drawn by a random number generator (12) and inserted into the legs of the betting card. Thereafter, a first string of winning numbers in a results card is generated, the first string corresponding to the first leg of the betting card. To determine whether a player has won anything involves comparing the winning numbers in each of the columns of the results card to the corresponding legs of the betting card to see whether there are any matching numbers. After the first string of winning numbers is generated, the player has an opportunity of either drawing further strings of winning numbers with a view to obtaining further matches, or withdrawing a portion or all the winnings to date.

WO 01/24128 A1

Fig 1



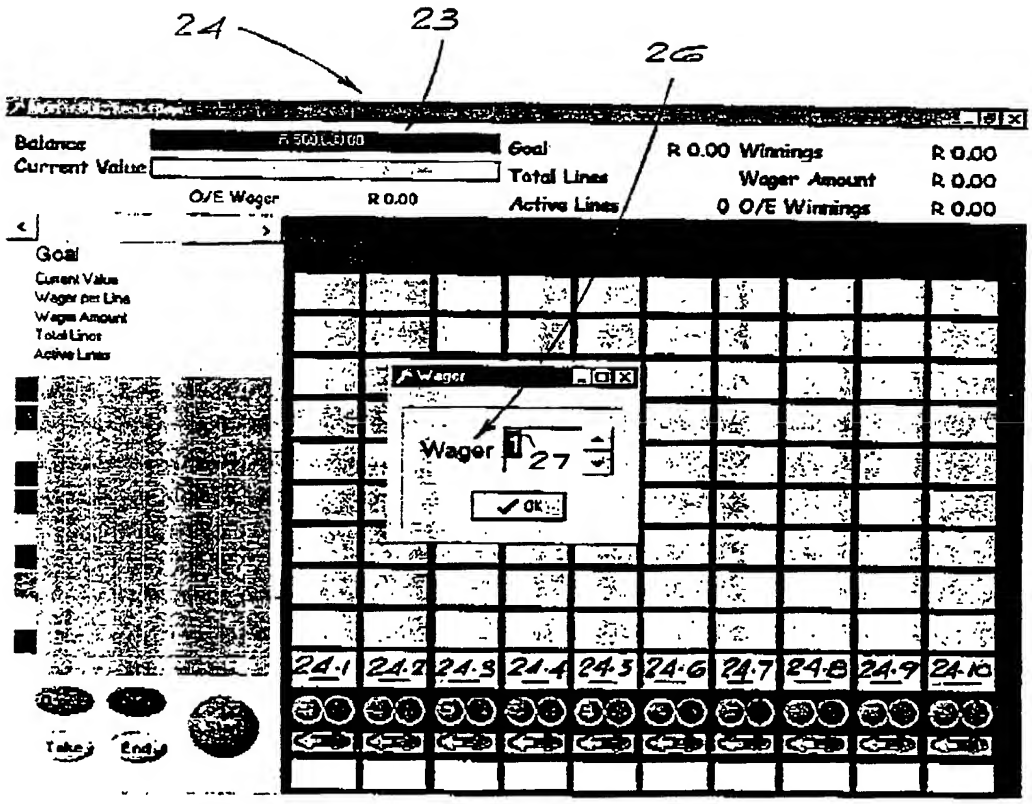

24
23
26
Balance
Current Value
Goal
Total Lines
Active Lines
R 0.00 Winnings
Wager Amount
0 O/E Winnings
R 0.00
R 0.00
R 0.00
O/E Wager
R 0.00
Goal
Current Value
Wager per Line
Wager Amount
Total Lines
Active Lines
Wager
27
OK
24-1
24-2
24-3
24-4
24-5
24-6
24-7
24-8
24-9
24-10

Fig 2A

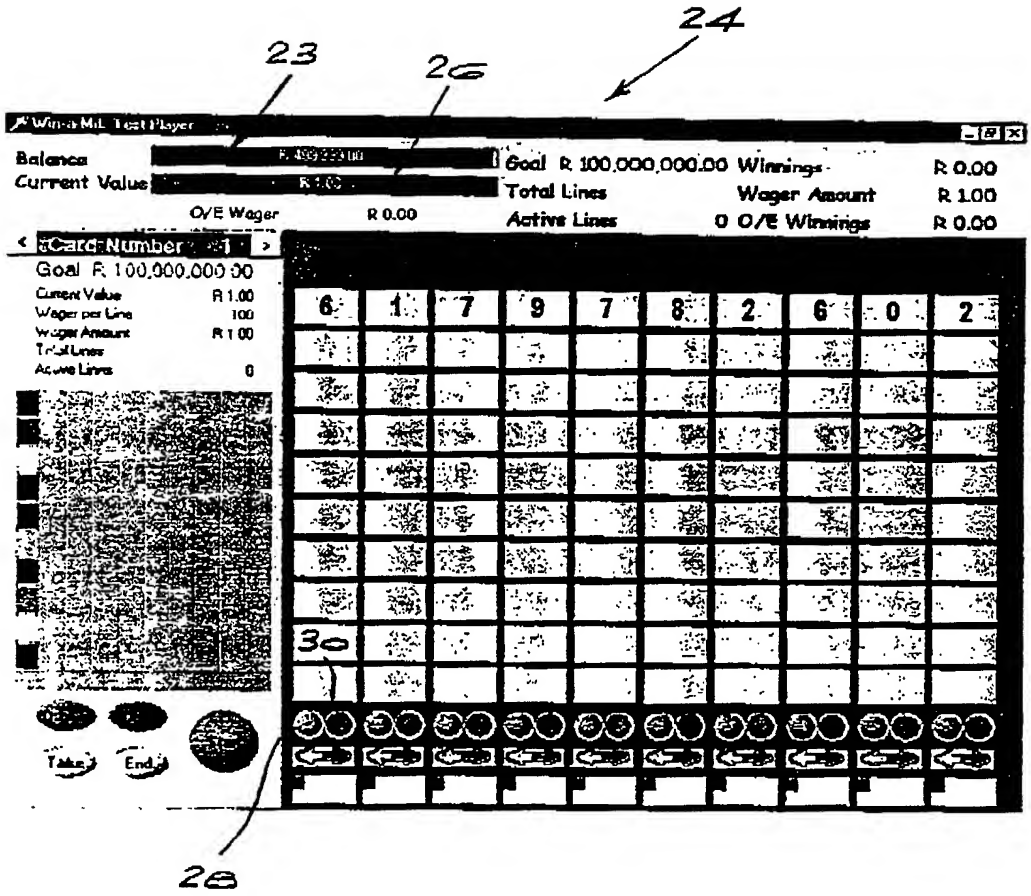

24
23
26
Balance
Current Value
O/E Wager
R 0.00
Goal R 100,000,000.00 Winnings
R 0.00
Total Lines
Wager Amount
R 1.00
Active Lines
0 O/E Winnings
R 0.00
Card Number
Goal R 100,000,000.00
Current Value
R 1.00
Wager per Line
100
Wager Amount
R 1.00
Active Lines
0
6 1 7 9 7 8 2 6 0 2
30
28

FIG 2B

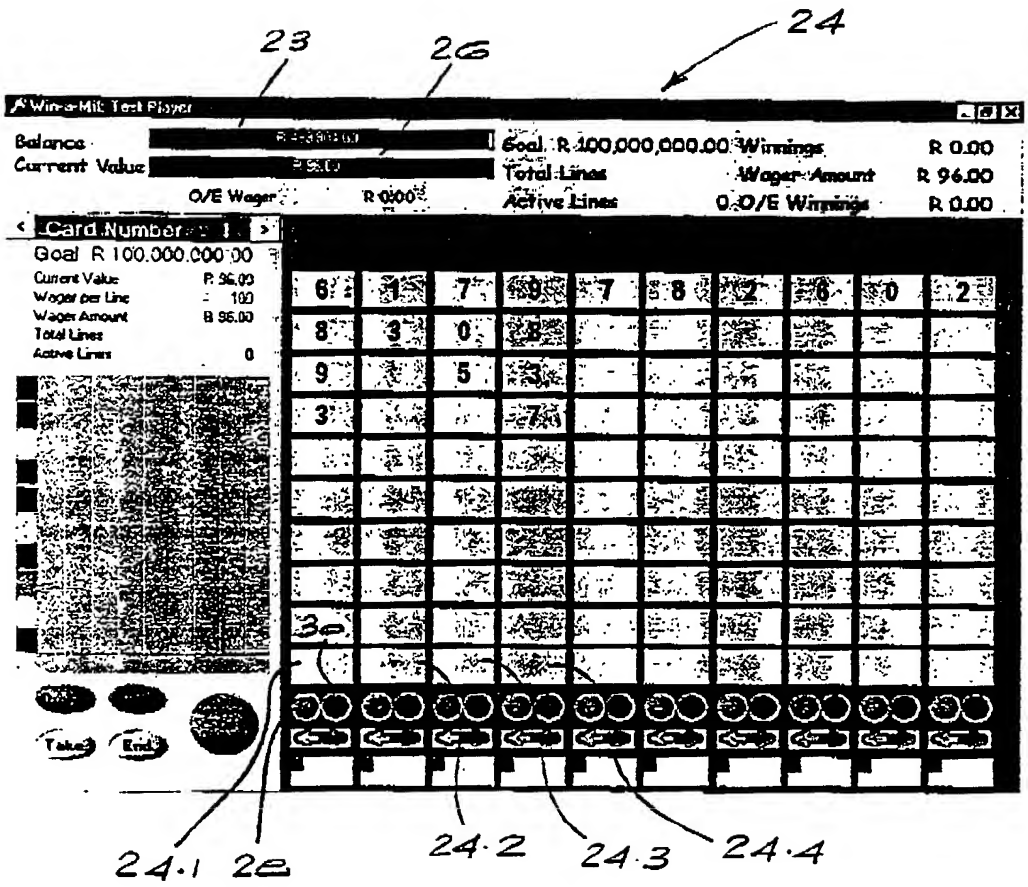

23
26
24
Balance
Current Value
Goal R 100,000,000.00
Winnings R 0.00
Total Lines
Wager Amount R 96.00
O/E Wager R 0.00
Active Lines
O/E Winnings R 0.00
Card Number
Goal R 100,000,000.00
Current Value
Wager per Line
Wager Amount
Total Lines
Active Lines
30
24.1
28
24.2
24.3
24.4

Fig 2C

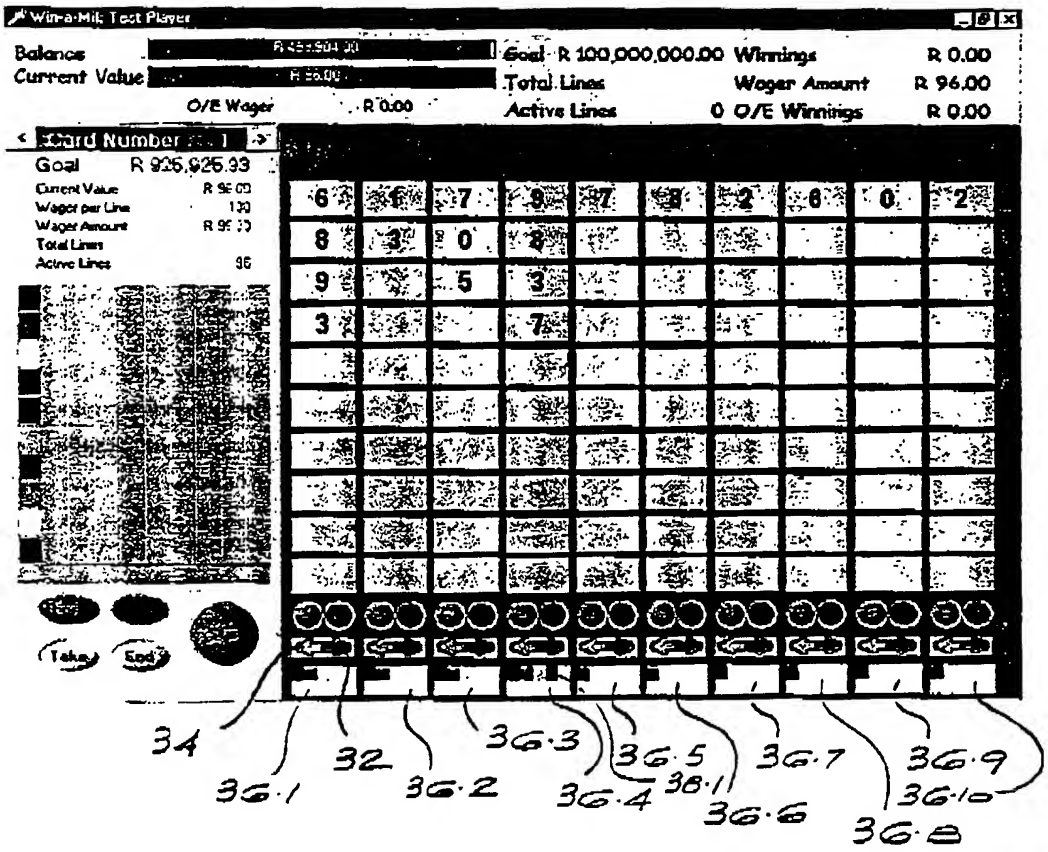

Win-a-Mil: Test Player
Balance
Current Value
O/E Wager
R 0.00
Goal R 100,000,000.00
Total Lines
Active Lines
Winnings R 0.00
Wager Amount R 96.00
0 O/E Winnings R 0.00
Card Number
Goal R 925,925.93
Current Value
Wager per Line
Wager Amount
Total Lines
Active Lines
34
32
36.1
36.2
36.3
36.4
36.5
38.1
36.6
36.7
36.8
36.9
36.10

FIG 2D

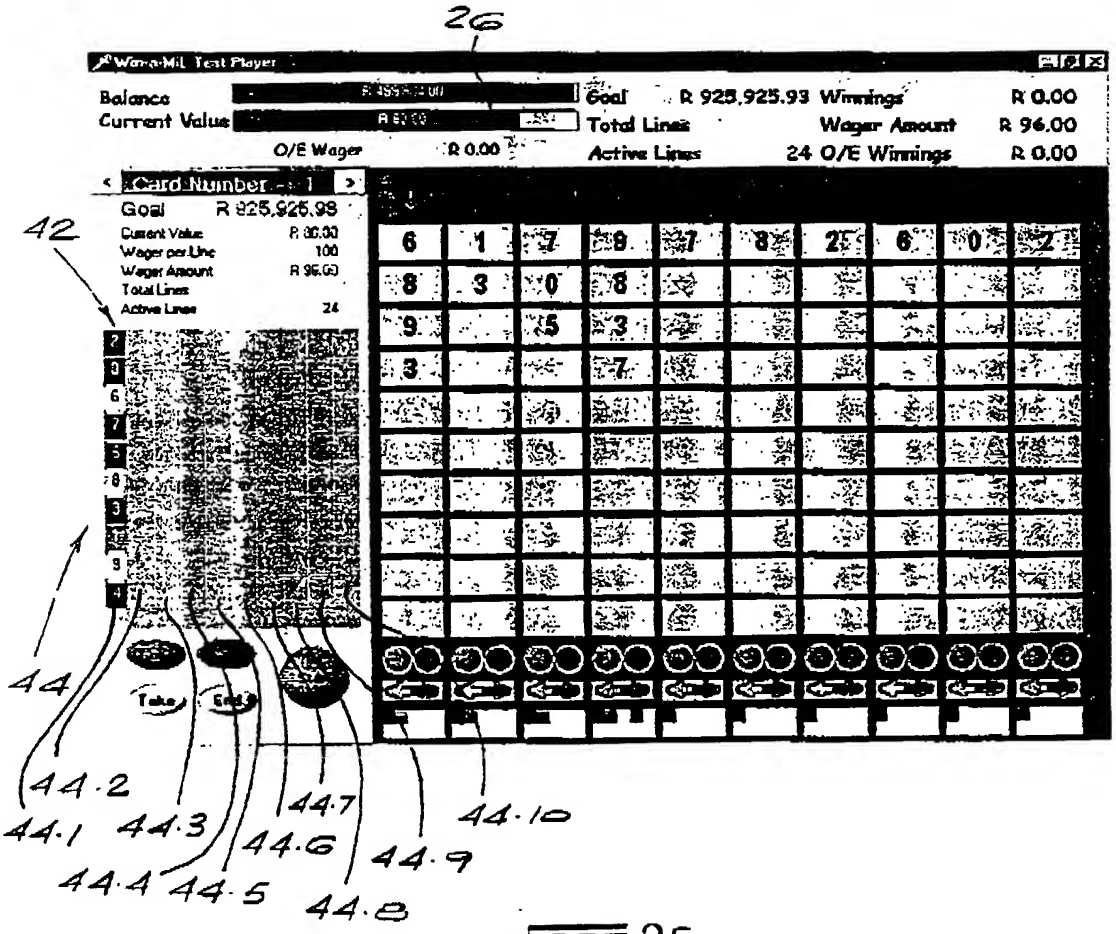

26
Win-a-Mil Test Player
Balance
Current Value
O/E Wager
R 0.00
Goal
R 925,925.93
Winnings
R 0.00
Total Lines
Wager Amount
R 96.00
Active Lines
24
O/E Winnings
R 0.00
Card Number
Goal
R 925,925.93
Current Value
Wager per Line
100
Wager Amount
R 96.00
Total Lines
Active Lines
24
42
44
44.1
44.2
44.3
44.4
44.5
44.6
44.7
44.8
44.9
44.10

FIG 2E

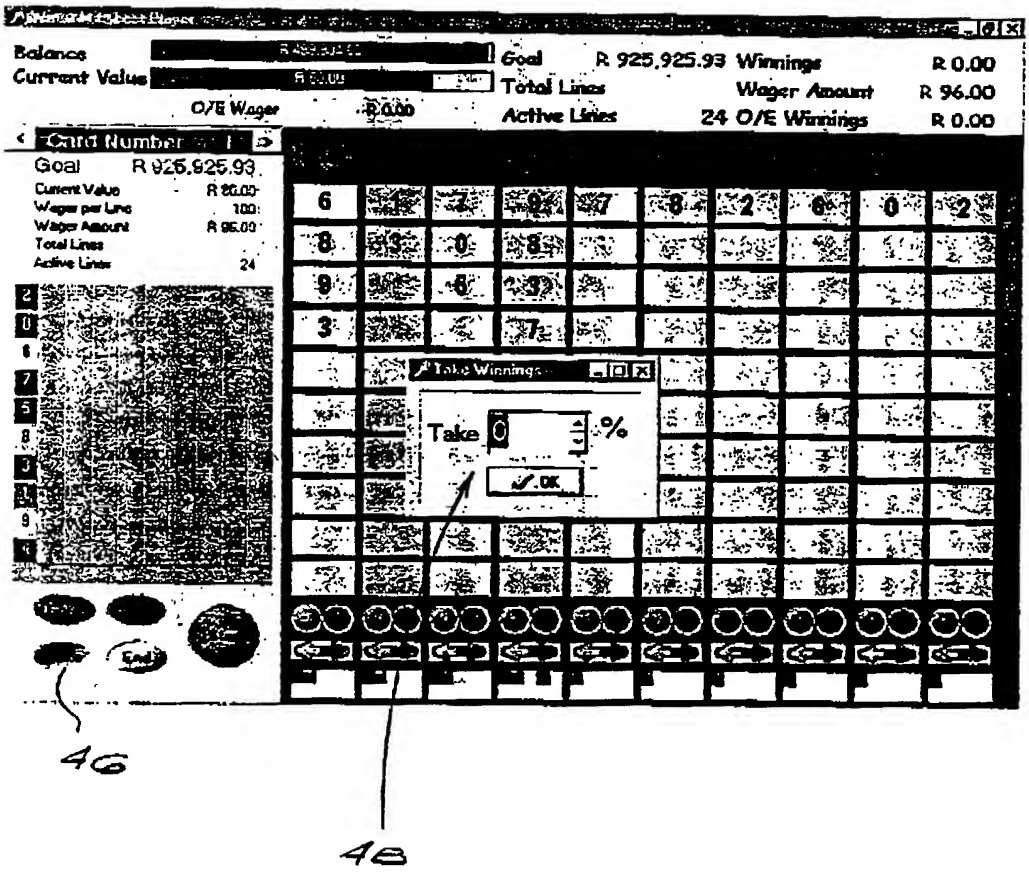

Balance
Current Value
O/E Wager
Goal R 925,925.93
Total Lines
Active Lines
Winnings R 0.00
Wager Amount R 96.00
24 O/E Winnings R 0.00
Card Number
Goal R 925,925.93
Current Value R 0.00
Wager per Line 100
Wager Amount R 96.00
Total Lines
Active Lines 24
Take Winnings
Take 0 %
OK
46
48

FIG 2F

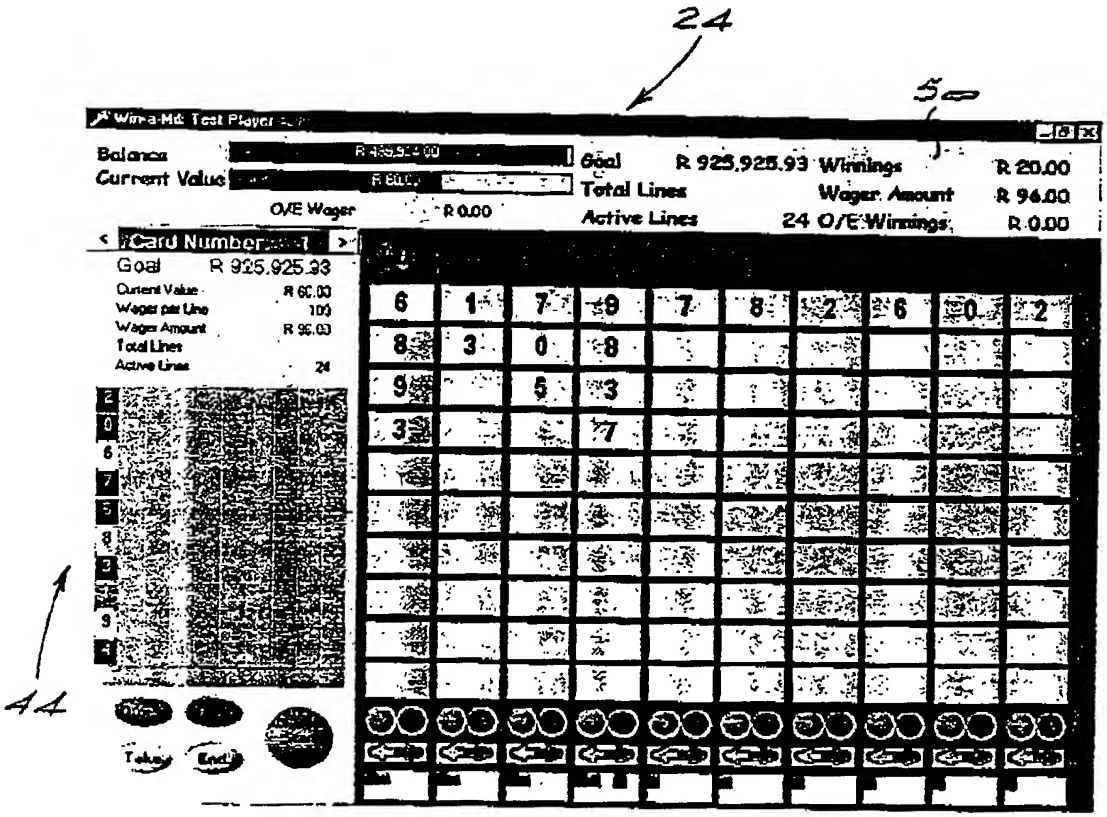

24
50
Balance
Current Value
O/E Wager
R 0.00
Goal
R 925,925.93
Total Lines
Active Lines
Winnings
R 20.00
Wager Amount
R 96.00
24 O/E Winnings
R 0.00
Card Number
Goal
R 925,925.93
Current Value
R 60.00
Wager per Line
100
Wager Amount
R 96.00
Total Lines
Active Lines
24
44

Fig 2G

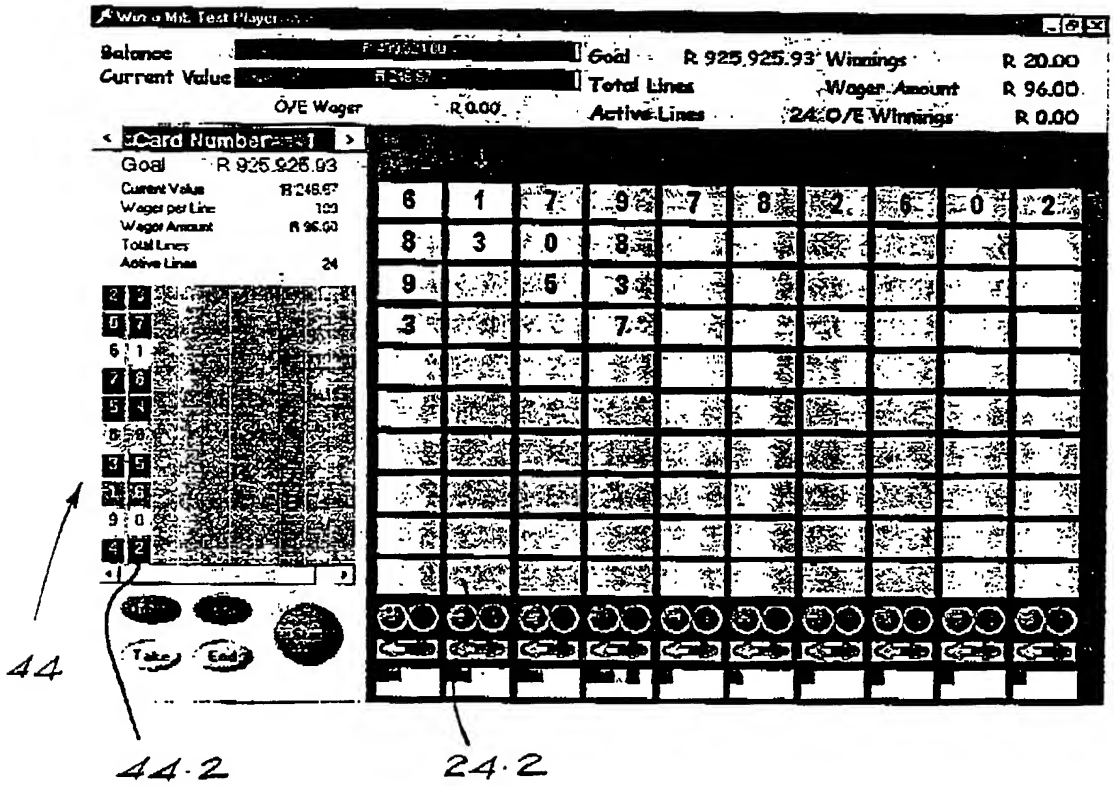

Balance
Current Value
O/E Wager
R 0.00
Goal
R 925,925.93
Total Lines
Active Lines
Winnings
R 20.00
Wager Amount
R 96.00
24 O/E Winnings
R 0.00
Goal
R 925,925.93
Wager per Line
Wager Amount
Total Lines
Active Lines
24
Take
End
44
44.2
24.2

FIG 2H

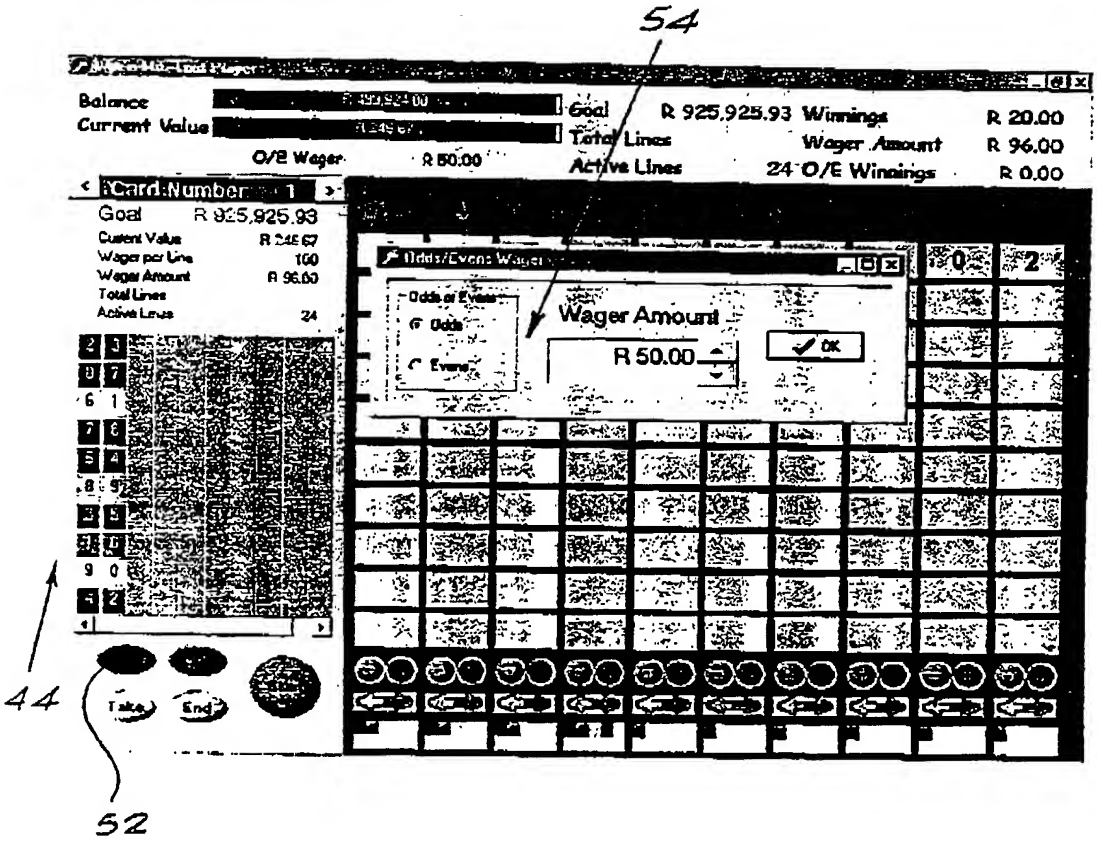

54
Balance
Current Value
O/2 Wager
R 50.00
Goal
R 925,925.93 Winnings
R 20.00
Total Lines
Wager Amount
R 96.00
Active Lines
24 O/E Winnings
R 0.00
Card Number 1
Goal
R 925,925.93
Current Value
Wager per Line
100
Wager Amount
R 96.00
Total Lines
Active Lines
24
Odds/Evens Wager
Odds or Evens
Odds
Evens
Wager Amount
R 50.00
OK
Take
End
44
52

FIG 21

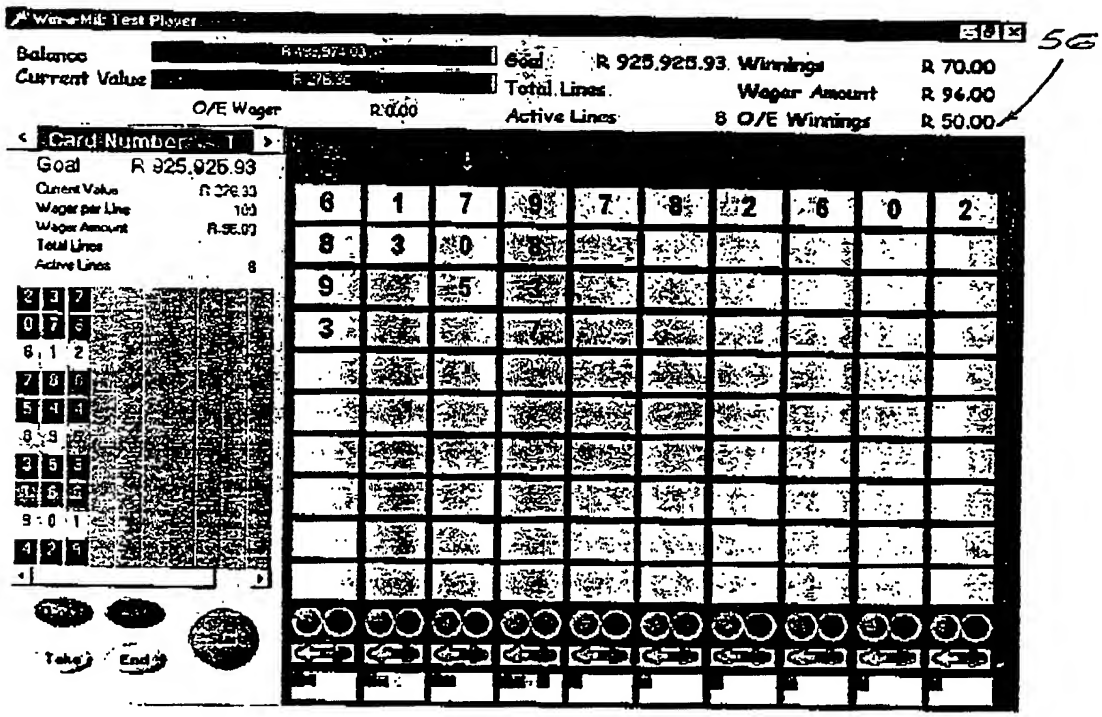
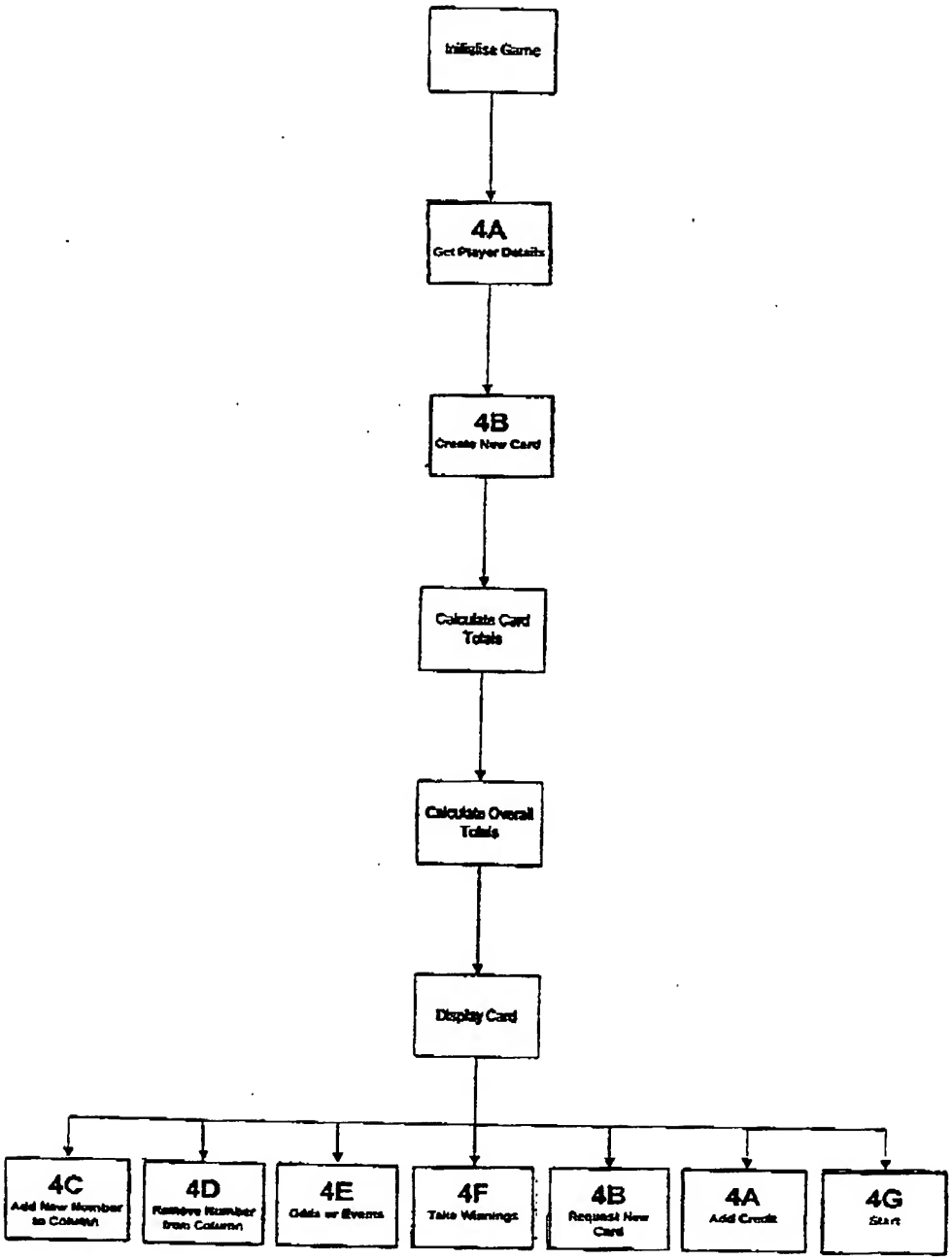

Balance
Current Value
O/E Wager
Goal
R 925,925.93
Total Lines
Active Lines
Winnings
R 70.00
Wager Amount
R 96.00
8 O/E Winnings
R 50.00
56
Card Number
Goal
R 925,925.93
Current Value
Wager per Line
Wager Amount
Total Lines
Active Lines
8
6 1 7 9 7 8 2 6 0 2
8 3 0 8
9 5
3 7

Fig 2J

Fig 3


Initialise Game
4A
Get Player Details
4B
Create New Card
Calculate Card Totals
Calculate Overall Totals
Display Card
4C
Add New Number to Column
4D
Remove Number from Column
4E
Odds or Evens
4F
Take Winnings
4B
Request New Card
4A
Add Credit
4G
Start

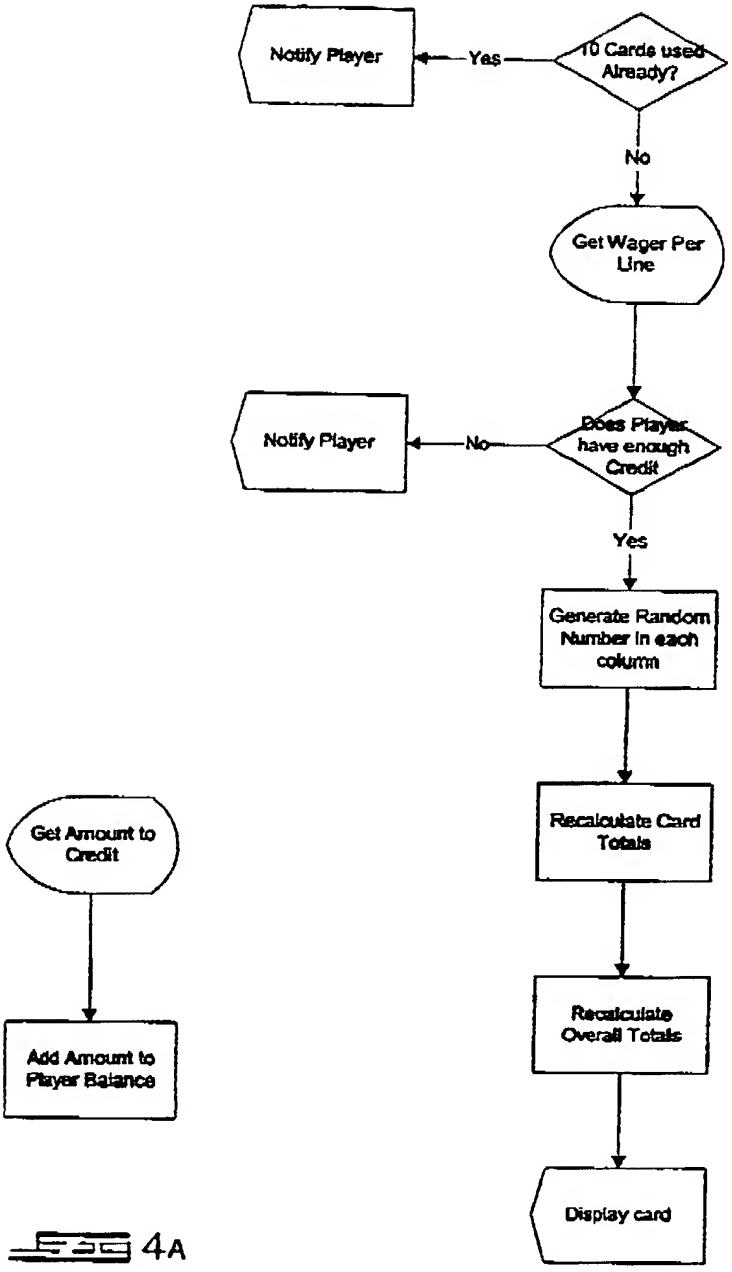

Notify Player
Yes
10 Cards used Already?
No
Get Wager Per Line
Notify Player
No
Does Player have enough Credit
Yes
Generate Random Number in each column
Recalculate Card Totals
Recalculate Overall Totals
Display card
Get Amount to Credit
Add Amount to Player Balance

Fig 4A

Fig 4B

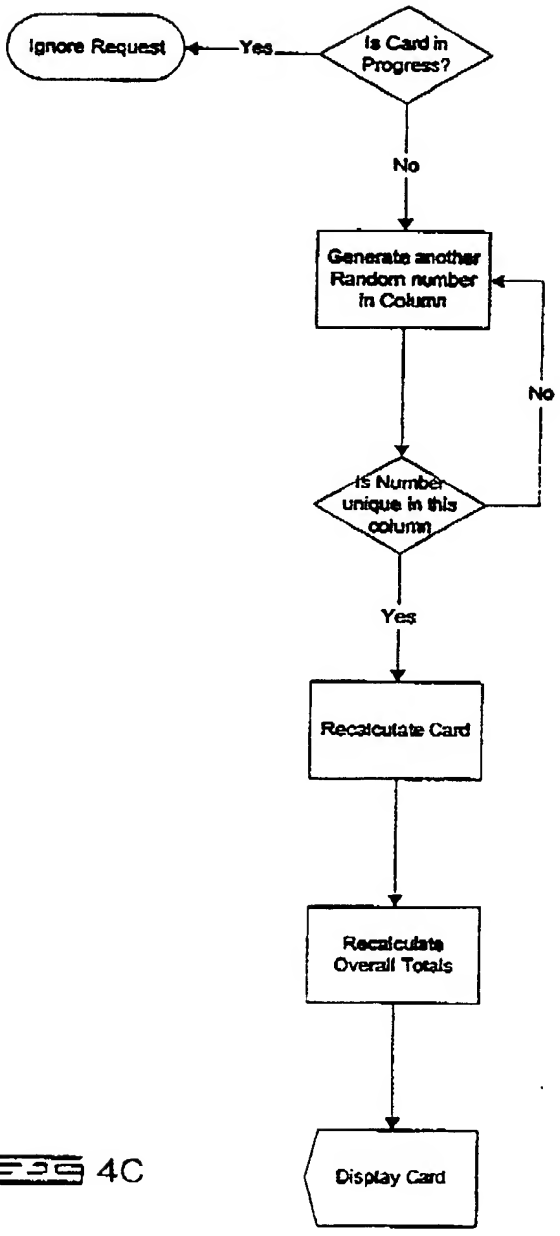

Ignore Request
Yes
Is Card in Progress?
No
Generate another Random number in Column
No
Is Number unique in this column
Yes
Recalculate Card
Recalculate Overall Totals
Display Card

Fig 4C

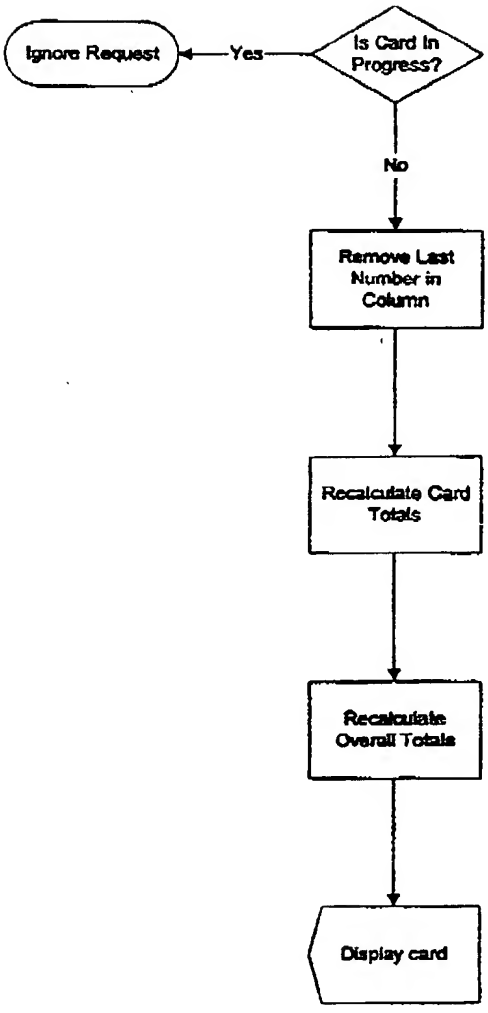

Ignore Request
Yes
Is Card In Progress?
No
Remove Last Number in Column
Recalculate Card Totals
Recalculate Overall Totals
Display card

Fig 4D

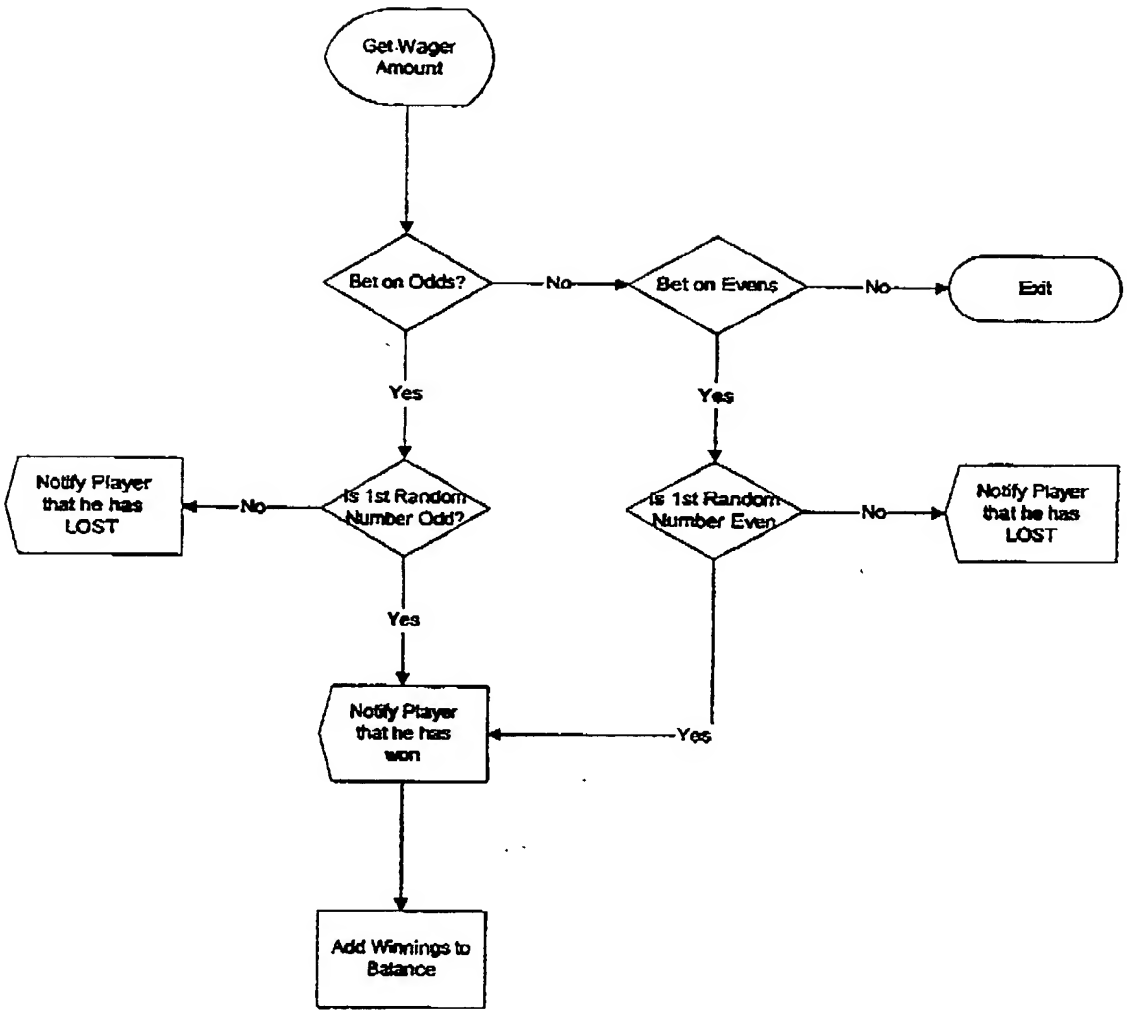

Get Wager Amount
Bet on Odds?
No
Bet on Evens
No
Exit
Yes
Yes
Notify Player that he has LOST
No
Is 1st Random Number Odd?
Is 1st Random Number Even
No
Notify Player that he has LOST
Yes
Notify Player that he has won
Yes
Add Winnings to Balance

FIG 4E

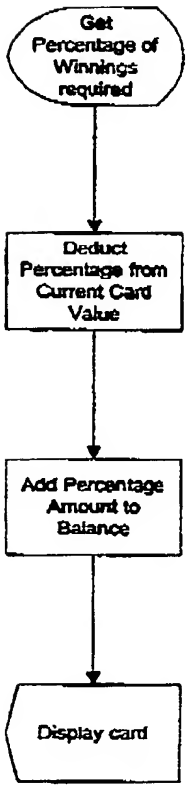

Get Percentage of Winnings required
Deduct Percentage from Current Card Value
Add Percentage Amount to Balance
Display card

Fig 4F

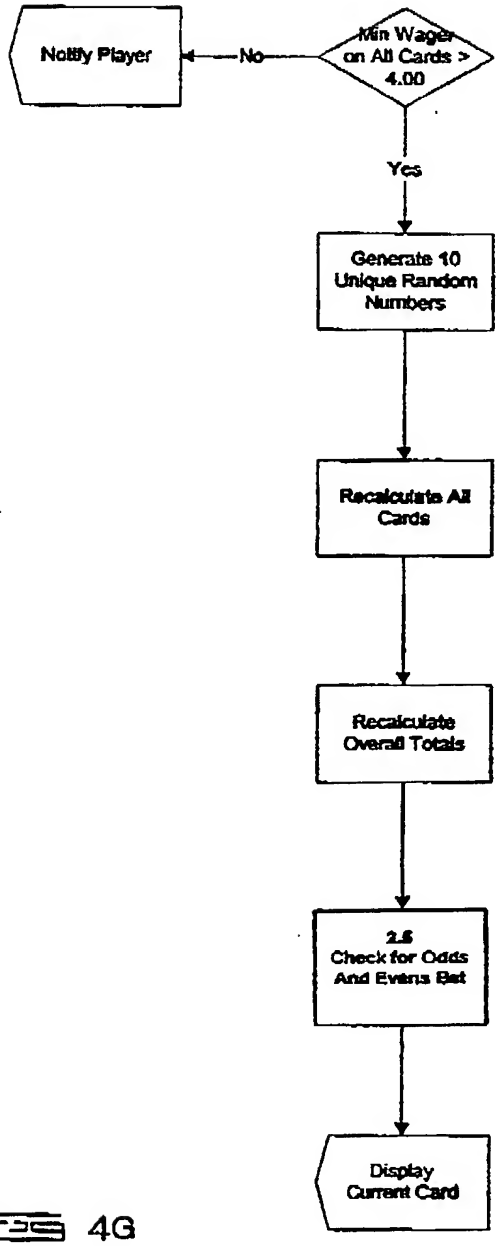

Notify Player
No
Min Wager on All Cards > 4.00
Yes
Generate 10 Unique Random Numbers
Recalculate All Cards
Recalculate Overall Totals
2.5 Check for Odds And Evens Bet
Display Current Card

FIG 4G

Docket No.
P-6485

# Declaration and Power of Attorney For Patent Application

## English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled "AN INTERACTIVE COMPUTER-BASED GAMING SYSTEM"

the specification of which

(check one)

☐ is attached hereto.

☒ was filed on October 2, 2000 as United States Application No. or PCT International Application Number PCT/IB00/01402

and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

| Prior Foreign Application(s) | | | Priority Not Claimed |
|---|---|---|---|
| 99/6243 | SOUTH AFRICA | 30 SEPTEMBER 1999 | ☐ |
| (Number) | (Country) | (Day/Month/Year Filed) | |
| | | | ☐ |
| (Number) | (Country) | (Day/Month/Year Filed) | |
| | | | ☐ |
| (Number) | (Country) | (Day/Month/Year Filed) | |

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

| (Application Serial No.) | (Filing Date) |
|---|---|
| (Application Serial No.) | (Filing Date) |
| (Application Serial No.) | (Filing Date) |

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

| (Application Serial No.) | (Filing Date) | (Status) (patented, pending, abandoned) |
|---|---|---|
| (Application Serial No.) | (Filing Date) | (Status) (patented, pending, abandoned) |
| (Application Serial No.) | (Filing Date) | (Status) (patented, pending, abandoned) |

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

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| **James P. Rythe**r | **Reg. No. 20,424** |
| **Joel H. Bootzin** | **Reg. No. 42,343** |
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| Sole or first inventor's signature | Date 21 May 02 |
| Residence | 89 CORLETT DRIVE, BIRNAM, 2196, SOUTH AFRICA ZAX |
| Citizenship | SOUTH AFRICAN |
| Post Office Address | AS ABOVE |

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| Full name of second inventor, if any | |
| Second inventor's signature | Date |
| Residence | |
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